



**NOAA Teacher at Sea**  
**Karolyn Braun**  
**Onboard NOAA Ship KA'IMIMOANA**  
**October 6 – 28, 2006**

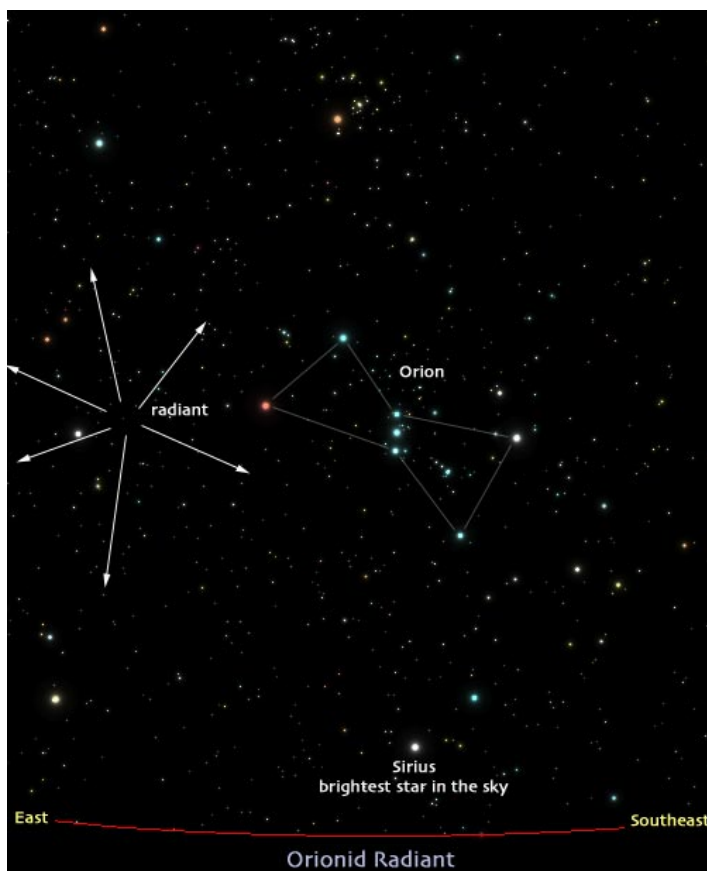
**NOAA Teacher at Sea: Karolyn Braun**  
NOAA Ship KA'IMIMOANA  
Mission: TAO Buoy Array Maintenance  
Saturday, October 21, 2006

**Plan of the Day**

630 CTD 6S/170W  
1230 Retrieve and deploy TAO  
buoy 5S/170W  
CTD and AOML

The alarm went off at 2 a.m.  
Am I crazy or what? I pulled  
myself out of bed to go view the  
Orionid meteor shower. What is  
a meteor you may ask? Well a  
"meteor shower," also known as  
a "meteor storm," is a celestial  
event where a large number of  
meteors are seen within a very  
short period of time. These  
meteors are small fragments of  
cosmic debris entering Earth's  
atmosphere at extremely high  
speeds, leaving streaks of light  
that very quickly disappear.  
Most of the small fragments of  
cosmic debris are smaller than a

grain of sand, so almost all fragments are burned up and never hit the earth's surface. Fragments which do contact earth's surface are called meteorites. These events are one of the few astronomical phenomena where everyday people, equipped with only their eyes, can experience the beauty of astronomy at its best. There are approximately ten mornings each year when the meteor activity is exceptional. What about the other 355 nights per year? Well, these are the nights when the activity is so sparse one can barely stay awake. YAWN! The Orionid meteor shower is active throughout October and the first week of November. This shower is produced by the inbound particles of the famous Halley's Comet, which last passed through the inner solar system in 1986. The Earth passes closest to the comet's orbit on October 21. At this time the Earth actually only skims the outer fringes of the debris field produced by Halley's Comet. The Orionids can still produce a very entertaining display of celestial fireworks, especially when viewed



from rural locations. When seen near maximum activity, an observer can count 15 to 25 Orionid meteors per hour. I was lucky to see 30 or more on my hour observation. Definitely worth losing sleep over!

The morning came and went and around 1330 as I assisted the Electronic Technicians with the TAS intranet web page. I learned how to use FrontPage too so it was worth the time and effort. I also helped spool some of the line for the TAO buoy retrieval and fed the line to deploy it. It was a long day but the work got done. Today's Buoy retrieval was last minute so it will make the ship behind schedule. But only time will tell.